Society Proceedings

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The President, Dr. Bullard, in the Chair.

TWO CASES OF FRIEDREICH'S ATAXIA.

By Dr. Knapp.

The man, aged sixteen, came to the hospital six years ago. The family history is negative, except that his paternal grandfather had partial paralysis and his mother's sister epilepsy. He was born at term, the labor was long and difficult, and he was cyanosed, not breathing for an hour when born. He walked at twenty-two months and seemed healthy. When between two and three years of age it was noticed that he spilled his milk and that his hands shook especially as he tried to move them. This has increased, the movements of the hands have become more ataxic and he stumbled in his gait. For the last year there has been some tremor of the head, and he has complained of cramps and loss of sensation in the left leg. The memory has failed somewhat of late, but before that he has showed normal intelligence. His speech is a little thick and he shows a very slight nystagmus, but the pupils and eye-grounds are normal. There is a moderate knee-jerk and Achilles reflex, but in the past the knee-jerks have been absent. When he approximates the knees the left leg shows a spasm and develops an equino-varus. There is a very marked ataxia and jerking movements of the hands, especially on intended movements.

The second patient is eighteen, and gives no history of any nervous trouble in the antecedents. An older sister, however, has had a staggering gait and intention tremor for four years, and a cousin, his father's sister's son, has had a staggering gait for four years. In both instances the trouble began at the age of seventeen. This patient was well until the age of fifteen when he was ill for a week with some infectious disease, called typhoid fever. On getting out of bed after it he was weak all over and has staggered ever since, but he notices no trouble in executing movements when lying down. He is liable to spill liquids and his head shakes at times. The gait is slightly ataxic, there are some static ataxia and choreiform movements of the head and trunk. The static ataxia is increased on closing the eyes. The eye-grounds are normal and the pupils a little sluggish. Knee-jerks and Achilles reflexes are absent. There is some jerky inco-ordination of the hands.

Sensation is apparently unaffected. There is some scoliosis and an apparent lack of development of the upper part of the trapezius, with an over-development of the scapular muscles, but there are no symptoms of muscular dystrophy.

A CASE OF SYRINGAL HEMORRHAGE COMPLICATED BY MENINGITIS.

By Drs. W. N. Bullard and E. E. Southard.

The case was that of a woman, fifty years of age, who had noticed, less than a year before her death, a numbness of the left foot with pain and tenderness. The numbness and tenderness increased and extended. Pains and tenderness appeared over the abdomen and chest. Weakness of the legs and incontinence set in and, four days before admission to hospital, paraplegia appeared.

On admission the patient showed complete flaccid paralysis of the legs with absence of knee jerks and plantar reflexes as well as loss of pain sensation as high as the groins and sacrum. Leucocytosis appeared and increased. The anesthesia extended first to the umbilicus and later on the right side to below the nipple. On the left side there was an area of intense hyperesthesia above the anesthetic area. A few days later the anesthesia retreated to the level of the umbilicus. She died without modification of symptoms after a gradual failure six weeks later, being semi-comatose thirty-six hours before death.

The autopsy gave evidence of a syringomyelia with gliosis in both posterior horns with an apparently total transverse hemorrhagic lesion in the lower dorsal region. There was a meningitis most extensive in the sacral region and gradual thinning out in the thoracic region. The pus contained numerous bacteria of various kinds. There was a bed-sore measuring 10x7.5 cm. in the sacral region. From the base of the bed-sore a probe could be passed into the spinal canal. The organs of the trunk showed nothing remarkable beyond bronchopneumonia with acute pleurisy.

The readers interpreted the data of this case as an illustration of the following series of events: I, Gliosis with cavity formation in the spinal cord; II, Hemorrhage into cavity with effects tantamount to those of transverse myelitis; III, Extensive decubitus with erosion of bone and exposure of spinal canal; IV, Ascending meningitis.

A CASE OF ISOLATED DEGENERATION OF THE POSTERIOR ROOT BUNDLES OF THE CORD, OCCURRING IN A CASE OF GENERAL PARALYSIS.

By Dr. H. A. Cotton.

The lesion involved the entering roots of the seventh cervical segment, and was limited to the right side of the cord. The degenerated root bundles were easily made out macroscopically, and by their pearly gray color were easily distinguished from the other healthy root bundles. Serial sections of the cord above the lesion were stained by

Weigert's method for medullated fibers, and the course of the degeneration could be made out as a narrow tract passing upward, and gradually approaching the column of Goll in its ascending course. The interest in the case was mainly anatomical, as the clinical features did not differ from those in an ordinary case of general paralysis. Such lesions are rare except when produced experimentally in animals. A similar case has been described by Schaffer (*Anatomisch-Klinische Vorträge* Jena, 1901.), who lays much stress upon such a degeneration occurring in the cord in general paralysis. This is a true exogenous degeneration of the posterior columns. It differs from a true tabetic degeneration only in its intensity and can be considered as substantiating the view that the degeneration of the posterior columns in general paralysis is identical with true tabes.

The histo-pathology failed to show just why the seventh cervical root should be selected, although Schaffer found an enormous increase in the connective tissue cells at the point of entrance of the posterior roots, also a marked thickening of the pia. Photographs of the segments above and below the lesion were shown to illustrate the degeneration.

A CASE OF CONTUSION OF THE BRAIN, AND A CASE OF BRAIN TUMOR.

By Dr. Baldwin.

Dr. Putnam said that he had been interested in Dr. Baldwin's statement that what might have been diagnosticated as a "cerebral concussion," proved actually to be a cerebral lesion, and that, too, a lesion remote from the seat of injury. In his opinion cerebral concussion considered as wholly independent of actual injury of brain tissue rarely occurs, except in the sense that a severe nervous shock may form a part of a traumatism or that the cerebral circulation may be very seriously demoralized under similar conditions.

Dr. J. J. Putnam called attention to Babinski's method of treating aural vertigo by lumbar puncture, which this distinguished observer had advocated on the basis of a large number of observations. He had recently used this method in two cases, and with great benefit. At the time of the operation both patients were suffering greatly from a constant series of attacks that had practically incapacitated them for work. One of them was a middle-aged woman, the other an intelligent student of the law. In the first case about ten cubic centimeters of fluid were withdrawn; in the second about fifteen cc. The second patient suffered from headache, felt only, however, when he was in an upright position, for a week or more after the operation; but both patients were relieved from their vertigo, and had no return of it, except for one or two trifling indications, during periods amounting in one case to about six months, in the other to about three.

In commenting on the probable explanation of these results, the speaker referred to Babinski's statement that the withdrawal of the fluid diminishes the pressure in the labyrinth of the ear and pointed out the fact that we see quite often results that seem permanent in the treatment of neurological conditions as following from influences that would have been classified as temporary. Thus, in one very interesting case of radicular pain in both arms and shoulders, due apparently to the encroachment of an intra-spinal tumor, the speaker had seen permanent relief brought about by vertebral laminectomy which had caused the draining off of a large quantity of cerebro-spinal fluid. It is now ten years or more since the operation was done and the pain which had become unbearable has never returned.

THE MELANCHOLIA-MANIA GROUP OF PSYCHOSES.

By Dr. Cowles.

Dr. J. J. Putnam said that he had been greatly interested in Dr. Cowles's work for a long time past and that he believed it to be distinctly in the right direction. The direction, namely, of making clearer the fundamental physiological principles that underlie the symptomatology of disease. This is a path which Hughlings Jackson, in his earliest writings, entered upon with so much interest and intelligence.. Indeed, it may perhaps be said that he was a pioneer in this field. Ostwald's elaboration of the doctrine of energies is certainly of great value, even though there are some of us who could not agree with him in his belief that any such physical theory could be made a substitute for philosophy and metaphysics.

Dr. Cowles's chief argument, as he understood the matter, is that there is no such antagonism between the states of so-called depression and exaltation as the dictionary rendering of those words would suggest.

Dr. E. E. Southard agreed with Dr. Cowles that the Wundtian psychology, especially as regards the feelings, could be applied with great difficulty to numerous diagnostic problems in psychiatry. He felt that a bipartite division of the mental life, perhaps on the lines of Brentano, was in some ways superior, for psychiatrical purposes, to the *knowing-feeling-willing* psychology. Where feelings and the will are not too sharply sundered for the purposes of classification, the practical worker can the more readily stick to the important facts, which are, of course, motor facts. In this way the inadequate schematism of Griesinger can be dissolved.

Modern emphasis on the motor, viz., the *accessible,* elements in the mental life is also shown by Dr. Cowles' endeavor to utilize the energy concept in constructing curves approximating the reduction of energy in individuals suffering from neurasthenia, followed by melancholia, later by mania, then perhaps by exhaustion, before an up-grade is estabtablished once more. Whereas Dr. Cowles' idealized curves represent the scale of energy *to spend* in the individual and suggest that the maniacal subject may have less to spend than the melancholiac, some of the conventional curves of the textbooks represent rather the energy *spent. Melancholia agitata* is an example of a field very worthy of graphic presentation on these lines.

On the histopathological side it seems difficult to obtain even a rough idea of the amount of energy engaged in the brain. Chemistry yields little as yet. We can obtain some hints from the deposit of lipochromes in certain cells. These may serve as indices of materials held back in the cells of older subjects. We should study more carefully these older subjects, the presenile and climacteric disorders.

Dr. Channing said that he felt it a duty to express the debt of gratitude he owed to Dr. Cowles for his admirable paper. It indicated to his mind the change that had come about in the last few years in the study of mental diseases. Formerly the more elaborate a system of classification could be made, the greater authority its maker was supposed to be. Now the emphasis was being laid on the investigations of psychical conditions, or psycho-motor states in the earlier stages before disease was fully developed. If we are to make progress in treatment we must first of all understand the significance of underlying psycho-physiological processes. Classification had been given far too much importance. Dr. Carter Grey long ago had said that in his opinion they were of little value, and the speaker was coming to believe that they were "the last resort of noble minds." We had heard of "the passing of neurasthenia," and we might bye and bye hear papers read on the passing of melancholia, mania, paranoia and dementia præcox.

Dr. Abbot agreed in the main with Ostwald's theory of energetics as outlined by Dr. Cowles. All activity, whether physical or mental, means expenditure of energy. This expenditure must conform to all the laws of energy. He looked on mental action, whether in the intellectual or emotional or psycho-motor fields, as activities of the individual, and hence as modes of energy, requiring the expenditure or transformation of energy. And the diminution or loss of available energy may give rise to the symptoms which we see in the manic-depressive group of psychoses.

But he should take exception to the diagrams that represent the maniacal or excited phase as indicating a greater loss of energy than the depressive phase, for example. In any individual case the symptoms will depend quite as much on the physiological locus of the fatigue as on the degree of fatigue (using fatigue in the sense of diminution of energy, which in these cases extends to a pathological degree). That is, if the physiological seat of voluntary inhibition is especially fatigued, the patient will show symptoms of motor activity and flight of ideas. If the physiological locus of motor activity is especially fatigued, the patient will show motor retardation. The amount or degree of fatigue may be the same in either case.

For similar reasons he should take exception to the attempt to represent diagrammatically the emotional, motor, and intellectual changes in a given case by one curve. The diminution of energy which underlies the emotional changes is not always equal to that underlying the psycho-motor or the intellectual phenomena, and at least these three curves of energy should be drawn to represent the given case. These curves would almost never be parallel.